Summary and Response to Stakeholders Comments
ENERGY STAR Program Commercial Refrigerators and Freezers

Comment #	Topic	Comment	Response
1	General	Manufacturers indicated that since the effective date of the 2017 DOE federal standards are forthcoming, there will be many more models that would be included in the dataset in 2017. If current models are redesigned to comply with DOE standards, they should be included in the dataset ENERGY STAR uses to set levels. The commenter indicated that equipment currently listed in the DOE database would provide a better indication of the current market.	EPA understands that many models are currently undergoing design changes and performance data on all of these upgraded models is not available for inclusion in the dataset, at this time. However, EPA was successful in collecting some data on re-designed CRE that reflects the market shift and, included this additional data in the Draft 2 dataset. EPA uses standard equipment as the baseline when determining ENERGY STAR performance levels, and in the event there is a Federal minimum standard, EPA uses the Federal standard as the baseline. EPA believes the models that will meet the proposed ENERGY STAR levels will represent the top performers in the marketplace when the new DOE standards take effect in 2017.
2	General	The revised ENERGY STAR levels will cause economic hardship for manufacturers. Manufacturers are stretching their resources to comply. Manufacturers also have a cost and time burden to get products third-party certified to new levels.	EPA understands the Draft 2 levels to be challenging but achievable and expects that in time, many manufacturers will be able to have a selection of their models certified. EPA has recognized numerous labs and certification bodies with the intention of driving down costs for partners and will continue to work to do so.
3	Performance Levels	EPA's approach for defining ENERGY STAR eligible products by establishing product and volume specific maximum daily energy consumption (MDEC) levels is supported.	EPA incorporated a binned approach for vertical models to ensure product availability of various product sizes. However for models with limited data sets, including the horizontal models and the VCT.SC.L category, EPA is proposing a straight percentage reduction below the DOE 2017 Federal standards.
4	Definitions	EPA's revision to cite to sections of the Code of Federal Regulations (CFR) is supported.	EPA appreciates this feedback.

5	Definitions	EPA should keep the definition of "Drawer Cabinet" rather than aligning with DOE.	EPA believes the broad definition of Chef Base and Griddle Stand sufficiently includes refrigerated equipment with drawers. EPA will continue to group refrigerated cabinets with drawers under the Chef Base and Griddle Stand term. (EPA also reminds stakeholders that products which fall within the definition of Chef Base or Griddle Stand remain excluded at this time.)
6	Refrigerants	Manufacturers are working to transition to alternative refrigerants by the SNAP deadline in 2019. Regarding the energy performance of hydrocarbon refrigerants, some manufacturers have experienced energy savings and some have experienced losses.	Partners who have incorporated alternative refrigerants have indicated that in many cases additional energy savings can be achieved. Based on the existing performance data that EPA has reviewed, the Agency sees use of climate-friendly refrigerants as a pathway to meeting the proposed ENERGY STAR Version 4.0 levels.
7	Refrigerants	One stakeholder asked how the potential energy savings of new refrigerants were considered in determining the levels and percentage of models meeting the proposed levels.	Approximately 17% of currently certified unique models use climate-friendly refrigerants (e.g., R-290, R-600). EPA understands from manufacturers that many more will be available over the course of the year. Manufacturers have successfully incorporated the use of climate-friendly refrigerants into various product types and model configurations.
8	Effective Date	EPA should consider suspending or sunsetting the ENERGY STAR Commercial Refrigerators and Freezers category.	EPA acknowledges that the market for CRE is currently undergoing many changes. However, multiple manufacturers have demonstrated that efficiency beyond that required by the 2017 Federal standard is achievable. Following the stakeholder webinar (April 21, 2016), EPA received additional written and verbal feedback in support of maintaining the ENERGY STAR CRE category. EPA continues to see strong value and opportunity for advancing efficiency within this market, and is not intending to suspend or sunset this product category at this time.
9	Effective Date	EPA should consider delaying the effective date of the Version 4.0 Specification until after the DOE 2017 levels go into effect.	
10	Effective Date	EPA should consider an effective date of January 1, 2018 for the Version 4.0 specification. Manufacturers are balancing challenges of re-	

		designing for 2017 DOE Federal standards, while trying to meet SNAP requirements and the ENERGY STAR Version 4.0 specification.	
11	ENERGY STAR Criteria	Some data plots that were included in the Draft 1 data plots were incorrectly listed as freezers tested at 0° F. The outliers have skewed the dataset for this category.	The incorrectly characterized data points were removed from the data set for Draft 2, meaning the compliance rates of all sizes of VCT.SC.L levels were reduced. After further analysis of market and energy performance data, EPA has amended the VCT.SC.L criteria to 20% less energy than the 2017 Federal standard.
12	ENERGY STAR Criteria	The Draft 1 levels are aggressive, and manufacturers will not be able to meet them.	EPA has re-evaluated the levels for this Draft 2 specification. In many cases, the levels did not change significantly. EPA believes the models that will meet the proposed levels will represent the top performers in the marketplace when the 2017 DOE Federal standard takes effect. EPA made these adjustments in an effort to expand ENERGY STAR product availability and variety, while maintaining consumer energy savings and reasonable payback. While most levels for vertical equipment shifted, VCS.SC.M (15-30); VCT.SC.M (15-30); and the horizontal levels for both solid and transparent door refrigerators and freezers did not change from Draft 1.
13	ENERGY STAR Criteria	EPA should consider conducting a design trait analysis to determine if smaller models in the data set (e.g., VCS.SCL (0-15Ft^3)) are cold wall manual defrost or forced air automatic defrost.	EPA did not conduct a granular level of analysis as to what products are manual or automatic defrost. This level of research can be challenging given some of the data EPA collected for consideration is masked, and the Agency is unable to determine all the specific design attributes of some models.
14	Energy Management Systems	EPA was encouraged to address what are the energy savings associated with an energy management system (EMS). Will ENERGY STAR	EPA does not have data to address how many units would meet Version 4.0 levels with the EMS disabled. However, EPA has learned from manufacturers that in

		models still meet performance requirements if power management system were de-activated? Can EMS be de-activated in the field?	most cases, a technician would be needed to make that adjustment. Based on manufacturer discussions, the units are shipped with the EMS enabled, and are expected to operate in that manor post installation. Energy management systems may be activated during testing provided they are permanently installed and activated in the refrigeration product, as specified in 10 CFR § 431.64. The unit shall be shipped with the power management activated, if applicable. Models with EMS offer advantageous features, such as, improved lighting controls; controlled defrost cycles; anti-sweat heater controls; and performance monitoring.